

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 02446 PCT	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/IB 03/06317	International filing date (day/month/year) 18/11/2003	(Earliest) Priority Date (day/month/year) 19/11/2002
Applicant  HANSEN TRANSMISSIONS INTERNATIONAL NV		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

## 4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

## 5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

## 6. The figure of the drawings to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1  
☐ None of the figures.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 03/06317

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

In a gear unit for use in wind turbines and of the kind comprising a planetary gear stage, and an integrated main rotor bearing (4) adapted to provide location for the rotor hub (2) relative to the wind turbine nacelle (1) and to locate the planet carrier (3) relative to a low speed ring gear (13), the forces due to bending moments acting between the rotor hub and the nacelle are transmitted substantially directly from the rotor hub (2) to the nacelle (1) via the main bearing (4) and substantially none of said bending moments are transmitted to the nacelle via the ring gear (13) of the planetary gear stage.

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F03D11/02 5H1/28 F03D11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F03D F16H F16C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/14690 A (HANSEN TRANSMISSIONS INTERNAT ; BOGAERT ROGER (BE); FLAMANG PETER () 21 February 2002 (2002-02-21) abstract page 7, paragraph 3 claims 17,18,20,21 figures	1-9
X	WO 01/57415 A (HANSEN TRANSMISSIONS INTERNAT ; FLAMANG PETER (BE)) 9 August 2001 (2001-08-09) abstract page 2; figures 3A,3B	1-3,10
Y	---	14,15
	--- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

29 April 2004

Date of mailing of the international search report

12/05/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Daieff, B

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/079644 A (CHRISTENSEN MOGENS ; VESTAS WIND SYSTEMS AS (DK)) 10 October 2002 (2002-10-10) abstract page 2, line 25 -page 3, line 3 figures 1-3 ---	1, 2, 4-6, 13
P, X	WO 03/031811 A (HANSEN TRANSMISSIONS INTERNAT ; FLAMANG PETER (BE)) 17 April 2003 (2003-04-17) the whole document ---	1, 2, 11, 13
Y	US 3 338 584 A (SHUNJI YAGI ET AL) 29 August 1967 (1967-08-29) column 1, line 9-25; figure 2 ---	14, 15
A	WO 96/11338 A (HEHENBERGER GERALD) 18 April 1996 (1996-04-18) abstract page 5, line 4-15; figure 6 -----	1-10, 14

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 03/06317

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 0214690	A	21-02-2002	AU	7659301 A	25-02-2002
			CN	1447880 T	08-10-2003
			EP	1311759 A1	21-05-2003
			WO	0214690 A1	21-02-2002
			JP	2004506845 T	04-03-2004
			US	2004038770 A1	26-02-2004
<hr/>					
WO 0157415	A	09-08-2001	AU	3589301 A	14-08-2001
			EP	1252456 A2	30-10-2002
			GB	2385644 A	27-08-2003
			WO	0157415 A2	09-08-2001
<hr/>					
WO 02079644	A	10-10-2002	DK	200100545 A	03-06-2002
			CA	2442028 A1	10-10-2002
			WO	02079644 A1	10-10-2002
			EP	1373720 A1	02-01-2004
<hr/>					
WO 03031811	A	17-04-2003	GB	2381047 A	23-04-2003
			WO	03031811 A2	17-04-2003
<hr/>					
US 3338584	A	29-08-1967	NONE		
<hr/>					
WO 9611338	A	18-04-1996	AT	403310 B	26-01-1998
			WO	9611338 A1	18-04-1996
			AT	209753 T	15-12-2001
			AU	3597095 A	02-05-1996
			DE	59509888 D1	10-01-2002
			EP	0792415 A1	03-09-1997
			ES	2166832 T3	01-05-2002
			AT	216694 A	15-05-1997